

# Bio

CH # 10

Aerobic respiration, function of mucous, voice box and vocal cord, trachea and alveoli, glottis and epiglottis, bronchi and bronchioles, inhalation and exhalation, pleural membrane, daphargm, types and symptoms of bronchitis, symptom of asthma, emphysema and pneumonia, nicotine, double pneumonia and its causal bacteria, lung cancer n its cause, arteriosclerosis, passive smoking, lung cancer n its cause, two bad effect of smokings

**SHORT QUESTIONS EXERCISE : 1,2**

**UNDERSTANDING THE CONCEPTS : 4**

CH # 11

Homeostasis, Osmo and thermoregulation, Turgidity, guttation and dew, transpiration, hydrophytes xerophytes n halophytes with example, nephron and its parts, renal cortex and renal medulla, hilus and pelvis, glomerular filtrate, selective reabsorption and tubular secretion(S.Q + L.Q), Name of organs for homeostasis in human with its function, afferent and efferent arteriole, lithotripsy, Kidney stone cause n symptoms, kidney failure n its major causes, kidney transplant, Dialysis n dialyzer

**SHORT QUESTIONS EXERCISE : 1**

**UNDERSTANDING THE CONCEPTS : 1,4**

CH # 12

Name of coordinated action and also define it, sensory and motor neurons and nerves, saltatory impulse, ganglions, dendrites and axons, nerve impulse, mid brain, brain stem, function of thalamus and hypothalamus, hippocampus, meninges, spinal cord and its function, aqueous n vitreous humour, exocrine gland, disorders of eye(S.Q + L.Q), acromegly and dwarfism, hypo and hyperthyroidism, Tetany, function of oxytocin, gonads, sympathetic and parasympathetic nervous system, paralysis cause n symptoms

**SHORT QUESTIONS EXERCISE : 1,3,4,8**

**UNDERSTANDING THE CONCEPTS : 1, 5, 7,**

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CH # 13

Locomotion n movement, Endoskeleton and exoskeleton, elastic, hyaline and fibrous cartilage(S.Q + L.Q), Bone with its types and explain its functions(S.Q + L.Q), chondrocytes and osteocytes, Andreas Vesalius, Role of tendons and ligaments(S.Q + L.Q), antagonism, Bicep and tricep(S.Q + L.Q), flexion and extension, origin and insertion, osteoporosis n its causes, function of estrogen, Gout

**SHORT QUESTIONS EXERCISE : 1,2**

CH # 14

Reproduction, types of reproduction, multiple fission, fragmentation, budding wit example in corals, endospores, calluses, suckers, advantages n disadvantages of vegetative propagation(S.Q + L.Q), alternation of generation, pollination and its types(S.Q + L.Q), double fertilization, micropyle n hilum, dormancy, epi n hypocotyls, epigeal and hypogea germination, spermatogenesis and oogenesis, internal and external fertilization, STD AIDS and its causes (S.Q + L.Q),

**SHORT QUESTIONS EXERCISE : 2, 4**

**UNDERSTANDING THE CONCEPTS : 4,7**

CH # 15

Genetics and Trait, Nucleosome, Homologous chromosome, gene loci and allele, transcription and translation characteristics of pea plant, monohybrid and dihybrid cross, types of genotypes and types of allele, law of independent assortment and segregation, punnet square, central dogma, co

dominance n incomplete dominance, two sources of variations, types of variations, theory of special creation, Darwin book, gene flow, breed and cultivar, organic evolution, true breeding, Nitrogenous bases of DNA, natural n artificial selection,

**SHORT QUESTIONS EXERCISE: 1,2,3,4**

**UNDERSTANDING THE CONCEPTS : 1**

**CH # 16**

Ecology, biosphere, population and community, species, decomposers with examples, carnivores and herbivores, trophic level, ecological pyramids and biomass, biogeochemical cycle, nitrification and denitrification, ammonification n assimilation, competition and name its types, symbiosis and commensalism, mutualism and parasitism, endo and ecto parasites, two disadvantages of deforestation, acid rain n one effect, global warming n its effects, smog n eutrophication, environment friendly fuel, deforestation n aorestation, renewable and non renewable resources, 3 R

**SHORT QUESTIONS EXERCISE: 1,2,4,5**

**CH # 17**

G.E, Biotechnology and human genome project, Gene therapy, dairy products, fermentation and its types (S.Q + L.Q), two uses of glycerol and formic acid, continuous n discontinuous fermenter (S.Q + L.Q), fermenter n its advantage, genetic engineering and recombinant DNA, steps of genetic engineering, Four Objectives of G.E and four achievements of Genetic engineering (urokinase, interferon, thymosin and beta endorphin), endonuclease and ligase, ssp novel protein

**SHORT QUESTIONS EXERCISE : 1,3,4**

**CH # 18**

Drug, Synthetic drugs, Sedatives, antibody n antigen, antiseptic and disinfectants, cephalosporin's, bactericidal and bacteriostatic, vaccine and vaccination, sulpha drug, hallucinations, social stigma, iodine tincture, Function of hallucinogen, narrow and broad spectrum antibiotics, Edward Jenner contribution, Joseph Lister, social stigma **SHORT QUESTIONS EXERCISE: 1 to 5**

## **MOST IMPORTANT LONG QUESTIONS**

**CH # 11**

Homeostasis in plants in detail, Structure of nephron explain with diagram (V.V.IMP), Osmoregulatory functions of kidney (V.V.IMP), Kidney stone, Dialysis types (V.V.IMP).

**CH # 13**

Component of human skeleton, Joints and its types S.Q + L.Q (V.V.IMP), Arthritis and its types (V.V.IMP)

**CH # 12**

Structure of Neuron (V.V.IMP), Hind Brain (V.V.IMP), Feedback mechanism n explain its types (V.V.IMP), Reflex action, Pituitary gland, Thyroid gland and pancreas (V.V.IMP)

**CH # 14**

Binary fission (V.V.IMP), Natural and Artificial vegetative propagation (V.V.IMP), Germination of seed (V.V.IMP), Types of fertilization, male and female reproductive system of rabbit (V.V.IMP)

**CH # 17**

Define Biotechnology and explain its scope**(V.V.IMP)**, Basic steps of genetic engineering**(V.V.IMP)**, Achievements of genetic engineering, Single cell protein and its importance

**CH # 18**

Sources of medicinal drugs**(V.V.IMP)**, Note on sedatives, narcotics and hallucinogens, Main groups of, antibiotics**(V.V.IMP)**, Note on antibiotic resistance, mode of action of vaccines**(V.V.IMP)**

## **IMPORTANT NOTE :**

**FOR SHORT QUESTIONS** focuss on **CH # 10 & 11** For first Section While **MAINLY** focuss on **CH # 15 & 16** for **2<sup>nd</sup>** and **3<sup>rd</sup>** Section respectively . Because these **TWO CHAPTERS** carry **4** short Questions Each.

**FOR LONG QUESTIONS** focuss on Pairing **CH # 11 & 13 AND CH # 17 & 18.**

While **CH # 12 & 14** as an optional pair.

**IN EACH CHAPTER BOLD QUESTIONS ARE MOST IMPORTANT BECAUSE MAY BE ASKED IN SHORT QUESTIONS AS WELL AS LONG QUESTIONS ALSO.**

**FOR OBJECTIVES FOLLOW PAST PAPERS OF ALL BOARDS & ALSO FOCCUS ON EXERCISE OBJECTIVES.**